## THERON PATRICK

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# **Summary**

Seasoned frontend technology leader with over 10 years of experience architecting and delivering sophisticated web applications. Currently leading initiatives at CarGurus, where I've spent six years building scalable frontend systems and mentoring engineering teams. Proven track record of transforming complex technical challenges into performant user experiences, from legacy system modernization to cutting-edge GenAl solutions. Deep expertise in JavaScript/TypeScript with a focus on creating resilient, high-performance applications that scale across global markets.

#### **Education**

**Boston College** - Carroll School of Management *2012*Bachelor of Science - Computer Science & Information Systems

## **Technical Skills**

Languages: JavaScript, TypeScript, HTML, CSS, Freemarker

Frameworks: React, Remix, Vue.js, Express, Node.js

Tools: Git, Webpack, Vite, NPM, Yarn, Yarn Workspaces, Yalc, ESLint, Babel, Gulp,

Jenkins, Jira, Docker, Jest, React Testing Library

Platforms: AWS, Google Cloud

AI/ML: OpenAI, ChatGBT, Claude, Amazon Bedrock, Large Language Models, Prompt

Engineering, RAG Systems, Ollama

API Integrations: Google Auth, Google Maps, Google Ad Manager, Google Publisher

Tags, YouTube, Imgur, Twitter, Facebook **Databases**: PostgreSQL, MySQL, MongoDB **Design**: Photoshop, Illustrator, Sketch, Figma

Mobile: React Native, native Android apps (Java), native iOS apps (Swift)

Game Engines: Defold, Corona, Gamemaker

### <u>Professional Experience</u>

#### **CarGurus**

Principal Software Development Engineer, Technical Lead - 2023-Present Technical Lead - 2021-2023 Senior UI/UX Engineer 2018-2021 As part of my involvement with the AI team, I contributed to the development of a natural language interface to help users navigate our vehicle inventory and get instant answers about car specifications. The project involved complex integration between our React frontend, OpenAI's API endpoints, and our internal backend systems. Drawing on my UX expertise, I identified key user friction points and implemented targeted improvements to both the chat interface as well as the prompt formation. These optimizations led to an extraordinary 8x increase in user engagement. Beyond the technical implementation, I established best practices for AI integration across our frontend systems and mentored team members on effectively integrating AI tools into their workflow.

For a company hackathon, I led a team to develop a car identification system that allowed users to take a photo of any vehicle they see on the street with their phone and seamlessly perform a search on our site for similar vehicles. We leveraged Amazon Bedrock and Claude's vision capabilities to analyze vehicle images and extract make, model, and year information with high accuracy. The project integrated with CarGurus' search infrastructure, automatically connecting users to relevant listings on our platform. The prototype demonstrated the powerful potential of combining computer vision AI with our existing marketplace, earning recognition from product leadership and helping shape discussions around future AI initiatives at CarGurus.

A significant achievement was spearheading the complete redesign of our account management system. The project showcased modern frontend architecture principles, utilizing React Router for seamless navigation and implementing code splitting through asynchronous imports to optimize performance. Additionally, I led a Core Web Vitals optimization initiative that achieved remarkable results, including reducing a critical page's bundle size from 2MB to under 300KB, significantly improving load times and user experience across the platform.

As technical lead for the platform modernization initiative, I guided a team in transforming our legacy jQuery codebase into a modern React/Redux architecture. The project required deep consideration of international markets, leading me to architect a comprehensive internationalization system for currency and measurement unit handling. This foundation became a crucial part of CarGurus' global expansion strategy, enabling seamless localization across multiple markets.

### **Happie** 2016-2017

Led the front end engineering team for a job candidate outreach platform. Responsibilities included: establishing an architecture and framework for the client-side app, specifying build processes, writing deployment scripts, integrating with back end APIs, and mentoring junior developers. Also engaged in design meetings, gave professional demos, and worked directly with CEO to help manage features and timelines.

### **VitalSource Technologies** 2013-2016

Served primarily as a front end engineer on educational applications, but also produced a full-stack Node.js app, wrote utility scripts, and contributed to design and planning discussions. Was able to quickly pick up concepts as they applied to new projects, including responsive design, internationalization, accessibility, mobile deployment, and frameworks like Angular and React. Detailed project descriptions included on second page.

## Fidelity Investments 2012

Contributed as a software engineering associate in the LEAP development program.

## **Independent Projects**

Theron's 2017 Cross-Country Extravaganza - In the summer of 2017 I spent 3 months on a solo cross-country road trip. Along the way I stopped in over 30 states, hiked through 33 national parks, and took hundreds of photos and videos. Afterwards I built out a web app to chronicle the adventures in unique and interactive ways. The custom-built sections include a theater for navigating through 1600+ snapchats using the YouTube API, a photo gallery using the imgur.com API, and a section highlighting some of the cool and unusual stats from the trip. You can view all these sections from my website.

**Taetro -** Official mobile app of electronic musician/producer Taetro. The app allows users to share and play official soundpacks from Taetro, as well as engage with the YouTube community. Available on the <u>iOS app store</u> and <u>Google Play Store</u>.

### Personal

Guitar player, singer, and Latin dance enthusiast with a passion for salsa and bachata. Avid road tripper who has explored across the country visiting 45+ national parks, and dedicated fan of all Boston sports teams. When not playing basketball or dancing, you can find me at the local karaoke bar practicing my setlist.